

Glossary



Learning about your child's hearing loss can be a struggle because of all of the new terminology that is used by various professionals and in the literature. Much of this terminology is also used in this notebook. This glossary contains many of the unfamiliar words that you have or will encounter throughout this notebook. The terms with a smiley face in front of them indicate a professional or other type of person that may be able to help you or your child along this journey.

Acoustic Feedback:

A whistling sound produced by a hearing aid. The amplified signal generated by the receiver of the hearing aid leaks outside, is picked up by the microphone, and is then re-amplified.

Acquired Deafness:

A loss of hearing that occurs or develops some time during a person's life but is not present at birth.

Aided Thresholds

The softest level that a given sound can be heard with the hearing aids on and the gain set at a pre-selected level.

Air Conduction (AC):

The process by which sound is sent (conducted) to the inner ear through the external ear canal, middle ear and into the inner ear. Air-conduction testing is performed by sending sounds to the ear through an earphone or loudspeaker.

Air-Bone Gap:

A difference between hearing responses for earphone or loudspeaker (air conduction) versus bone vibrator (bone-conduction) stimulation. A gap or difference between air-conduction and bone-conduction responses indicates conductive hearing loss due to problems in the middle ear.

Americans with Disabilities Act (ADA):

Signed into law in 1990, this is a "civil rights act" for persons with disabilities. The ADA requires public services and buildings to make reasonable accommodations to allow access to persons with disabilities, including hearing loss.

American Sign Language (ASL):

A manual language with its own word order and grammar, used primarily by people who are deaf.

Amplifier:

An electronic device for increasing the strength or gain of an electrical signal.

Amplification:

Used as a general term to refer to whatever device is being used to amplify sound (i.e., hearing aids, cochlear implants, FM systems).

Assistive Listening Device (ALD):

Devices, other than hearing aids, that improve listening for individuals with hearing loss. Some systems improve hearing in noisy situations by positioning the microphone closer to the sound source, or improve the quality of amplified speech or music. Includes FM systems and infrared systems.

Atresia (aural):

An ear malformation in which there is an absence of the external ear canal, usually with abnormalities of the outer ear, and/or middle ear space.

Audiogram:

A graphic representation of hearing loss, showing the amount of hearing loss (in decibels or dB) at different frequencies (250 - 8000 Hertz or Hz).

Audiologist:

A health care professional who is trained to evaluate hearing loss and related disorders, including balance (vestibular) disorders and tinnitus, and to rehabilitate individuals with hearing loss and related disorders. An audiologist uses a variety of tests and procedures to assess hearing and balance function and to fit and dispense hearing aids and other assistive devices. The minimum academic degree is a Master's. State licensure is required to practice audiology in most states.

Audiology:

The study of hearing; the profession is concerned with measurement and rehabilitation of auditory and communication problems.

Audiometer:

A device for presenting precisely measured tones of specific frequencies (or speech and recorded signals) and intensity levels in order to obtain an audiogram.

Auditory Brainstem Response (ABR) test:

A test that can be used to assess auditory function in infants and young children using electrodes on the head to record electrical activity from the hearing nerve. Other terms are: Brainstem Evoked Response (BSER), Brainstem Auditory Evoked Potential (BAEP), and Brainstem Auditory Evoked Response (BAER).

Auditory Neuropathy/Dysynchrony:

A term that describes a pattern of abnormal findings for a number of audiometric measures, e.g., auditory brain stem response (ABR), pure-tone and speech audiometry, and/or acoustic reflexes, yet normal findings for otoacoustic emissions (OAE). The most common pattern is the absence of an ABR with normal OAE.

Auditory Nerve:

The cranial nerve (VIII) that carries nerve impulses from the inner ear to the brain.

Auditory Training:

The process of training a person to use their hearing abilities by listening to environmental sounds, music and speech and then practicing recognizing and understanding what has been heard.

Aural (re)habilitation:

Specialized training for people with hearing loss to help them learn spoken communication skills through speech reading and auditory training.

Balance:

The biological system that enables individuals to know where their bodies are in the environment and to maintain a desired position. Normal balance depends on information from the labyrinth or vestibular system in the inner ear and from other senses such as sight and touch.

Balance Disorder:

A disruption in the labyrinth, the inner ear organ that controls the balance system, which allows individuals to know where their bodies are in the environment. The labyrinth works with other systems in the body, such as the visual and skeletal systems, to maintain posture.

Behavioral Observation Audiometry (BOA):

A pediatric audiometric procedure in which behavioral responses to sounds (e.g., eye opening, head turning) are detected by an observer. This procedure has been shown to be unreliable and affected by observer bias. It has been replaced by newer test methods (see Auditory Brainstem Response, Visual Reinforcement Audiometry).

Behind-the-Ear (BTE) Hearing Instrument:

A style of hearing instrument that has the electronic components in a case that sits behind the top of the ear. It is then held in place by a custom made earmold.

Bicultural:

To be a part of two cultures, such as deaf culture and hearing culture.

Bilateral Hearing Loss:

A hearing loss in both ears.

Bilingual:

To be fluent in two languages. When talking about children who are deaf or hard of hearing it generally means the proficient use of both English and ASL.

Bilingual-Bicultural:

Bilingual-Bicultural education of deaf and hard-of-hearing children encourages children to use American Sign Language as their first language and English as their second.

Binaural:

Refers to both ears.

Birth to 3 Program:

This early intervention program serves children ages birth to three years of age in Wisconsin who have developmental delays or conditions known to result in a developmental delay.

Bone Conduction:

The transmission of sound (mechanical vibrations) through the bones of the skull to the inner ear. Bone conduction testing is completed using a bone oscillator (vibrator) that is placed on the mastoid bone behind the ear or on the forehead.

Bone-conduction Hearing Aid:

A hearing aid in which the amplified signal directly stimulates the inner ear via a bone vibrator placed on the mastoid bone behind the ear. This type of hearing aid typically is used for individuals with atresia or chronic ear drainage.

Captioning:

A text display of spoken words, presented on a television or a movie screen that allows a deaf or hard-of-hearing viewer to follow the dialogue and the action of a program simultaneously.

Central Auditory Processing Disorder (CAPD):

A language disorder that involves the perception and processing of information that has been heard. Children with CAPD have problems following spoken instructions and usually show other language-learning problems, even though the inner ear is functioning normally.

Cerumen:

Ear wax.

Chloral Hydrate:

A common medication used to induce sleep, sometimes used during ABR testing with children.

Cochlea:

Also called the “inner ear.” A snail-shaped structure that contains the sensory organ of hearing and changes sound vibrations to nerve impulses. The impulses are carried to the brain along the VIII nerve, or auditory nerve.

Cochlear Implant:

A medical device that is surgically implanted and bypasses damaged inner ear structures and directly stimulates the auditory nerve, helping individuals who have severe to profound hearing loss to interpret sounds and speech.

Conditioned Play Audiometry (CPA):

A type of hearing test in which the audiologist teaches the child to respond when a sound is heard by playing some type of game. For example, the child puts a peg in a hole or a block in a bucket every time a sound is heard.

Conductive Hearing Loss:

A loss of sensitivity to sound, resulting from an abnormality or blockage of the outer ear or the middle ear. The most common cause of conductive hearing loss is middle ear fluid or infection. Other causes include wax buildup in the ear canal, a hole in the eardrum, or damage to the tiny bones of the middle ear.

Configuration

The term used to describe the severity of the hearing loss and the shape of the audiogram.

Congenital Hearing Loss:

A hearing loss that is present from birth and which may or may not be hereditary.

Congenital Malformation

Any deformity of the face, body, or organs that is present at birth

Cued Speech:

Cued Speech is a communication method, which uses hand shapes and positions to represent the essential sounds of spoken language.

Cytomegalovirus (CMV):

One group of herpes viruses that infects humans and can cause a variety of symptoms, including deafness or hearing impairment. A child may be infected with the virus before, at or after birth.

Deaf:

A term used to describe persons who have a hearing loss greater than 90 dB HL. It also may be used to refer to those who consider themselves part of the Deaf community or culture and choose to communicate using American Sign Language instead of spoken communication.

Decibel (dB):

The unit that measures the intensity or volume of sound.

Direct Audio Input:

The capability of connecting a sound source, such as a TV or tape recorder, directly into a hearing aid. Also refers to the connection of an FM auditory trainer directly into a Behind-the-ear hearing aid.

Dizziness:

A physical unsteadiness, imbalance, and lightheadedness associated with balance disorders. See vertigo.

Dynamic Range:

The difference between the softest sounds a person can hear and the loudest sounds they can tolerate.

Ear Canal:

The passageway from the outer ear to the eardrum.

Eardrum:

Also called the tympanic membrane; the eardrum separates the outer ear from the middle ear and is important in conducting sound to the middle ear and inner ear.

Ear Infection:

Also called Otitis Media; the presence and growth of bacteria or viruses in the ear.

Earmold:

A custom-made earmold used with a behind-the-ear hearing aids and delivers amplified sounds into the ear. The earmold helps to hold the hearing aid in the ear and directs sound from the hearing aid into the ear canal. Earmolds are made from soft materials after an impression is taken of the ear. They are made individually for each person.

Earphone:

A device for presenting sounds to the ear. Earphones may fit over the external ear or fit into the ear canal.

Ear Wax (cerumen):

A normal secretion from glands in the outer ear that keeps the skin of the ear dry and protected from infection.

Educational Audiologist:

An audiologist with special training and experience to provide auditory rehabilitation services to children in school settings.

ENT physician:

A doctor that concentrates on problems with the ear, nose, and throat.

Eustachian Tube:

A small passageway from the back of the throat to the middle ear that allows air into the middle ear.

External Ear:

The outer portion of the ear that is normally visible. Components of the external or outer ear include the pinna and the external ear canal.

Feedback:

The shrill whistling sound made when amplified sound from the hearing aid receiver goes back into the microphone of the hearing aid. Feedback can be caused by an earmold that does not fit properly or a damaged hearing aid.

Fluctuating Hearing Loss

A hearing loss that changes unpredictably in severity. Sometimes conductive losses associated with the onset of middle ear infections are called fluctuating hearing losses.

FM System:

An assistive listening device that improves listening in noise. Signals are transmitted from a talker through a microphone to the listener by FM radio waves that are directly imputed into the child's hearing instrument.

Frequency:

The unit of measurement related to the pitch of a sound. Frequency is expressed in Hz (Hertz) or cps (cycles per second). The more cycles per second, the higher the pitch.

Functional Gain:

The difference in a person's responses between aided and unaided threshold measures. Functional gain is less reliable and valid than other methods of testing aided benefit.

Gain:

An increase in the amplitude or energy of an electrical signal with amplification. Gain is the difference between the input signal and the output signal. It is a characteristic that hearing specialists look at when choosing a hearing instrument.

Genetic Professionals:

Consists of Clinical Geneticists (physicians) and Genetic Counselors who will work together to provide a genetic evaluation.

Genetic Testing:

May be able to provide information about the cause of hearing loss, possible associated medical conditions, and the risk of hearing loss for other family members through methods, which may include a review of family and medical history, a physical examination, discussion about laboratory tests such as DNA or chromosome testing, and discussion about ongoing care.

Hair Cells:

The hair-like structures in the inner ear that transform the mechanical energy of sound waves into nerve impulses.

Hard of Hearing:

The term to describe those with mild to severe hearing loss.

Hearing Aid:

Also known as hearing instrument; an electronic device that brings amplified sound to the ear. A hearing aid usually consists of a microphone, amplifier, and receiver.

Hearing Aid Dispenser (Dealer):

Is a professional who is licensed to test hearing in adults for the purpose of fitting hearing aids. In Wisconsin, a hearing aid dispenser is not licensed to test children's hearing but may dispense a hearing aid prescribed by an audiologist.

Hearing Aid Evaluation (HAE):

The process of selecting an appropriate hearing aid. The audiologist will evaluate different types of hearing aids to determine which is best suited to a particular hearing loss.

Hearing Disorder:

A disruption in the normal hearing process that may occur in the outer, middle, inner ear or the nerves to the brain.

Hearing Loss (or impairment):

A problem with hearing that is characterized by decreased sensitivity to sound in comparison to normal hearing. See conductive, sensorineural, and mixed hearing loss.

Hearing Threshold Level (HTL):

The softest intensity level (volume) measured in dB hearing level that a person can hear a sound of a particular test pitch. A completely normal HTL is 0 dB. Also known as HL.

Hereditary Hearing Impairment:

Hearing loss passed down through generations of a family.

Hertz (Hz):

Cycles per second. Frequency is denoted in Hz.

Individualized Education Program (IEP):

A written statement for a child with a disability (between the ages of 3 and 21) that is developed, reviewed, and revised by a team that is composed of the child's parents, regular education teacher, special education teacher, and a representative of the local education agency. Other people who have knowledge or expertise about the child or the particular disability may be invited to be part of the team.

Individualized Family Services Plan (IFSP):

A team-developed, written plan for infants and toddlers birth to 36 months and their families, which addresses: 1) assessment of strengths and needs and identification of services to meet such needs; 2) assessment of family resources and priorities, and the identification of supports and services necessary to enhance the capacity of the family to meet the developmental needs of the child. In Wisconsin this is the responsibility of the county that the child resides in.

Inner Ear:

The part of the ear that contains both the organ of hearing (the cochlea) and the organ of balance (the labyrinth).

Jervell and Lange-Nielsen Syndrome

A disorder made up of the following symptoms: endogenous, sensorineural hearing loss present at birth accompanied by a congenital heritable defect of the heart. Clinical feature includes fainting episodes.

Lip-reading:

Also known as speech-reading; a communication strategy that understands spoken language by interpreting lip movements, facial expressions, and postures.

Localization:

The ability to determine the direction of a sound source.

Mastoid Bone:

A portion of the temporal bone located behind the external ear. Bone-conduction stimulation often is applied to the mastoid bone.

Microtia:

Abnormal growth of the outer ear. Severity varies from minor skin tags or differences in ear shape to complete absence of the outer ear.

Middle Ear:

The part of the ear that includes the eardrum and three tiny bones (ossicles) of the middle ear, ending at the round window that leads to the inner ear.

Mixed Hearing Loss:

A hearing loss with both conductive (middle ear pathology) and sensory (cochlear or VIIIth-nerve pathology) components. The audiogram shows a bone-conduction hearing deficit plus a gap between earphone and bone-conduction responses.

Multimemory:

Hearing aids that have the ability to store different listening programs or settings that amplify sound according to particular listening environments and may be accessed by the user.

Nonsyndromic Hereditary Hearing Impairment:

A hearing loss or deafness that is inherited and is not associated with other inherited physical characteristics.

Ossicles:

The chain of three tiny bones in the middle ear (malleus, incus, stapes). Sometimes these bones are called the hammer, anvil and stirrup in common terms.

Otitis Externa:

An inflammation of the outer part of the ear and sometimes in the auditory canal.

Otitis Media:

An inflammation of the middle ear caused by infection.

Otitis Media with Effusion (OME):

Otitis media with abnormal fluid in the middle ear.

Otoacoustic Emissions (OAE):

Low-intensity sounds produced by the inner ear that can be measured with a sensitive microphone placed in the ear canal. It is also a test used to detect hearing loss.

Otolaryngologist:

Also known as an ENT; a physician/surgeon who specializes in diseases of the ear, nose, throat, head and neck.

Otologist:

A physician/surgeon who specializes in the treatment of ear problems.

Otology:

The branch of medicine that specializes on the ear.

Outer Ear:

The external portion of the ear that collects sound waves and directs them into the ear. The outer ear consists of the pinna and the ear canal.

Postlingually Deafened:

The process of becoming deaf after a person has acquired language.

Pressure-Equalizing (PE) Tube:

Also called a tympanostomy tube; a tube that is inserted in the eardrum to equalize the pressure between the middle ear and the ear canal and to permit drainage.

Prelingually Deafened:

An individual who is either born deaf or who lost his or her hearing early in childhood, before acquiring language.

Probe Microphone:

A tiny microphone attached to a soft, small tube. The probe microphone is placed in the ear canal and is used to measure a variety of sounds during a hearing aid evaluation.

Real-Ear-to-Coupler Difference (RECD):

The difference, in decibels and across frequencies, between the response of a hearing aid measured in a real ear versus a standard coupler. The RECD is a measure that allows the audiologist to accurately specify the sound levels delivered to the ears of infants and young children.

Real Ear Measurement:

A test technique used to measure the sound levels in the ear canal produced by a hearing aid. A probe microphone is placed in the ear canal alongside the hearing aid.

Residual Hearing:

The amount of measurable, usable hearing.

Sensorineural Loss:

A hearing loss caused by damage to the inner ear (cochlea) and/or the hearing nerve.

Sign Language:

A method of communication used primarily by people who are deaf or hard of hearing in which hand movements, gestures, and facial expressions convey grammatical structure and meaning.

Speech Awareness Threshold (SAT):

The lowest hearing level in dB at which a person can detect the presence of a speech signal, also known as the speech detection threshold (SDT)

Speech Frequencies:

The frequencies within the 500 to 4000 Hz region, which are most important for hearing and understanding of speech.

Speech Detection Threshold

The softest level a person can perceive the presence of a speech signal.

Speech Reception Threshold (SRT):

The lowest hearing level in dB at which 50 percent of two-syllable (spondee) words can be identified correctly. Also known as the ST (speech threshold or spondee threshold).

Speech-Language Pathologist:

A professional who evaluates and provides treatment for speech, language, cognitive-communication, and swallowing problems of children and adults. Speech and language delays are frequently seen in children with hearing impairments. Minimum academic degree is a Master's degree. State licensure is required to practice speech-language pathology in many states.

Sudden Deafness:

The loss of hearing that occurs quickly due to such causes as an explosion, a viral infection, or the use of some drugs.

Syndromic Hearing Impairment:

A hearing loss that is accompanied by additional physical characteristics (e.g., blindness, mental retardation or involvement of other organs).

Telecoil:

A wire coil contained within a hearing aid that picks up magnetic energy available from telephones or other assistive listening devices.

Threshold:

See also Hearing Threshold Level; the softest level at which a sound can be heard 50 percent of the time. The term is used for both speech and pure tone testing.

Tinnitus:

A sensation of ringing, roaring, or buzzing sound in the ears or head. It is often associated with hearing impairment and/or noise exposure.

Toxoplasmosis

A common disease found in birds, cats, and mammals across North America. The infection is caused by a parasite called toxoplasma gondi and affects 10 to 20 out of every 100 people in North America by the time they are adults. If a mother is infected while she is pregnant, her baby could be born with hearing loss.

TTY/TTD:

A device for severely or profoundly hearing-impaired persons to send or receive written messages transmitted via telephone lines.

Tympanogram:

A measure of tympanic membrane (eardrum) mobility.

Tympanostomy Tube:

See Pressure-Equalizing tube.

Unilateral Hearing Loss:

A hearing loss in one ear only.

Usher's Syndrome

Hereditary disease that affects hearing and vision and sometimes balance.

Vertigo:

A spinning sensation, sometimes occurring with nausea and/or vomiting.

Vestibular System:

The system in the body that is responsible for maintaining balance, posture, and the body's orientation in space. This system also regulates body movement and keeps objects in visual focus as the body moves.

Volume Control:

A device for increasing or decreasing the gain or volume of a hearing instrument.

Visual Reinforcement Audiometry (VRA):

A pediatric hearing test procedure in which the child's responses to sound are reinforced with a visual event (e.g., a moving toy). This procedure is most appropriate for children in the 6-month to 3-year age range.

Wide Dynamic Range Compression:

A special type of hearing aid or amplification device that compresses a wide range of sounds into a narrower range. This makes soft sounds easier to hear and makes loud sounds more comfortable for listening.